097.3
Z1092
No. #1185

File Copy !

c.1

R an[illegible] No. 1185

SECRET
13 Sept. 1943

EFFECT OF ALLIED BOMBING PROGRAM ON GERMAN AIR POSITION

One of the major achievements of the Allied air offensive from Britain to date, perhaps outranking in importance the industrial and economic damage inflicted by strategic bombing, has been the substantial impairment of GAF capabilities other than those of the Western fighter force. The Germans have been forced to convert their air force to a defensive organization, producing more fighters and fewer bombers; they have been obliged to divert a heavy portion of defensive air strength to the West and accept high attrition rates in this theatre; and recent USAAF attacks on fighter plants have seriously impaired the flow of much needed replacements. The concentrated assaults on the German air position by the VIII USAAF during July and August appear to have reversed the long growth trend in GAF S/E fighter strength. This development, combined with the prospect of Italian bases for Allied bombers in the near future, presents a favorable outlook for the Allied air offensive in coming months.

DEPARTMENT OF STATE
REFERENCE DIVISION
FILE COPY
PLEASE RETURN

a. Production. In order to meet the GAF's increasingly large defensive requirement in all theatres, production of both S/E and T/E fighters was nearly doubled between the middle of 1942 and the middle of 1943. Total production of combat aircraft increased only 28 percent, and output of long range bombers declined 15 percent.

The table which follows shows the changes in German combat aircraft production by type between July 1942 and July 1943.

Type	Output July 1942	Output July 1943	Percentage Change July 1942-July 1943
Long Range Bombers	510	435	-15
Dive Bombers	105	85	-19
Single Engine Fighters	410	810	+98
Twin Engine Fighters	110	210	+91
Miscellaneous	145	100	-31
Total Combat	1,280	1,640	+28

b. Diversion of Fighters to the West. The provision of defenses against the air offensive based on Britain has become during 1943 the heaviest task of the G.A.F. Its consistently intense fighter opposition, particularly to U.S.A.A.F. daylight missions, has been made possible through an expansion in the G.A.F. fighter establishment in the West and an acceptance by the G.A.F. of increasingly heavy attrition. Although 40 percent of total G.A.F. first-line strength is now on the Eastern Front, with 40 percent in the West and 20 percent in the Mediterranean, only 22 percent of combined fighter strength is on the Russian Front as compared to 65 percent in the West and 13 percent in the Mediterranean. The table below shows the percentage disposition of German air strength by theatres, for fighters and for all combat types combined, as of the first week of September 1943.

	S/E Fighters	T/E Fighters	Total Fighters	Total All Combat Types
West	55 %	84 %	65 %	40 %
Russia	26 %	15 %	22 %	40 %
Mediterranean	19 %	1 %	13 %	20 %
	100 %	100 %	100 %	100 %

c. Fighter Attrition in the West. While precise estimates of over-all German attrition in the West are not available, the claims of Allied pilots of enemy aircraft "destroyed" or "probably destroyed" in combat provide a rough indication of the general magnitude.[1] If revised claims of the RAF and USAAF in these two categories are taken as a minimum approximation of over-all enemy attrition in the West from all causes, it then appears that total German losses on the Western Front during the first eight months of 1943 were at least 4,000 aircraft, of which approximately three-quarters, or 3,000 aircraft, were single-engine fighters. Losses of this magnitude would represent about one-third of total combat production during the same period, but over half of single-engine fighter production. Of great importance is the sharp upward trend of USAAF

---

1 These claims cannot be taken as a reliable measure of over-all attrition; (a) because they may tend to overstate somewhat the number of aircraft destroyed in combat due to the difficulty of sifting out satisfactory totals from the conflicting and overlapping claims of different crew members, and (b) because aircraft destroyed in direct combat represent only a portion of total attrition, which also includes those lost enroute to or from combat, non-operational flying accidents, and aircraft destroyed on the ground by bombs. Since the above two factors tend to be offsetting, adjusted pilot claims may be accepted, in lieu of more exact estimates, as a rough approximation of minimum over-all attrition of the enemy air force.

claims since the first of the year. Eighth Air Force claims for "destroyed" alone averaged about 540 per month in July and August compared to an average of roughly 100 for the first four months of the year. Combined USAAF and RAF claims of enemy fighters destroyed on the Western Front during August equalled about three-quarters of total new production of S/E fighters.

d. Defensive Capabilities. The expansion of German fighter output, though large, has been insufficient to keep pace with the growing defensive requirements in the Western theatre. Thus, the flow of replacements in both fighter aircraft and pilots to the Russian and Mediterranean Fronts has been sharply curtailed, necessitating a reduction in the number of operating squadrons and, more particularly, in the scale of operations.

Beyond this a substantial reduction of GAF offensive capabilities has occurred. The absorption of repair and training facilities, as well as of new production, in sustaining an enlarged and increasingly active fighter establishment, have helped to reduce the combat effectiveness and scale of operations of the GAF bomber force.

In general, therefore, a serious impairment of GAF capabilities is attributed chiefly to the Allied bomber offensive from British bases. To date, this accomplishment has outweighed in its effect on German military strength the industrial

and economic damage inflicted by strategic bombing. So long as the GAF remains capable of sustaining its present scale of defensive effort, Allied strategic bombing can scarcely achieve truly decisive results. Particular importance attaches, therefore, to the recent attacks against fighter aircraft factories and related installations.

e. Loss of Aircraft from Allied Bombing. The RAF and United States Eighth Air Force have delivered increasingly heavy blows against German air strength in the form of bombing attacks on aircraft production facilities, repair factories, and air fields. A fairly complete tabulation of such missions during the 17 months between April 1942 and the end of August 1943 reveals the following rough totals for British-based Allied bombers:

Target	Number of Missions	Approximate Tonnage Dropped Over Targets
Aircraft final assembly and Airframe component plants	29	4,800
Engine assembly and component plants	6	2,300
Repair factories	16	1,000
Airdromes and air parks	115	3,400

These attacks on aircraft targets have been characterized by a marked upward trend in recent months, particularly by the Eighth Air Force, as shown on the attached table.

Until the concentrated USAAF offensive against German S/E fighter plants began late in July 1943, the direct loss of output resulting from bomb damage to production facilities was not very significant. More important undoubtedly was the sacrifice of production forced by the transfer of certain facilities from such exposed locations as Bremen and Warnemunde in the West to relatively safer Eastern positions.

In the brief period from July 25 to August 13, 1943, the USAAF delivered by far the most concentrated blow to date against German aircraft industry when it made eight attacks on six different final assembly and airframe component factories which jointly account for at least two-thirds of total S/E fighter production.[1] Aerial photographs reveal substantial damage to several of these plants, including those producing Messerschmidt fighters at Regensburg and Wiener Neustadt which jointly are credited with over half of total S/E fighter output. Preliminary examination of photographs suggests, as a rough gauge of the general magnitude of effect on production, that between 600 and 1,000 aircraft will be lost from production for August, September, and October out of a total of about 2,500 S/E fighters which might have been expected in the absence of these attacks. The impact of this production loss will begin to be felt on GAF front-line strength almost immediately.

---

1 All attacks were made by the VIII Air Force except that against the aircraft factory at Wiener-Neustadt which was made by the IX Air Force.

Beyond this, it is not unlikely that the recent USAAF attacks on the important ball-bearing factories at Schweinfurt will gradually have some effect on aircraft output and repair.

The various attacks on repair factories, airdromes, and air parks have unquestionably caused the destruction of a considerable, though indeterminate number of aircraft. The damage to facilities is likely to be quickly repairable.

fallen 15 percent below the early July peak.[1] This decline reflects mainly a heavy expenditure of squadron reserves.

C. The Outlook

While the results of the recent Eighth Air Force attacks on German fighter aircraft plants represent only a portion of the minimum effects required to achieve a decisive weakening of Germany's fighter defenses, they may nevertheless be regarded as a most encouraging beginning. Progress will be much facilitated by acquisition of bomber bases in North Italy. Attainment of such bases, first, will force a diversion of many GAF fighters from the West, thus making a less effective and more vulnerable fighter screen to oppose Allied attacks on both fronts. Second, it will place Allied bombers within much easier striking distance of German fighter factories. More than half of present fighter production lies within 250 miles of North Italy and about 80 percent is within roughly a 400-mile radius.

The turning point reached in July in the size of the GAF fighter force may be of extreme significance in coming weeks, especially when viewed in conjunction with damage done to production facilities. If vigorous and sustained Allied assaults can impose the same rate of decline in GAF fighter strength during September and October, a serious reduction in GAF defensive capabilities will be assured.

PHC
September 14, 1943

1. Actual strength, as distinct from initial equipment strength, refers to the estimated total number of aircraft in squadrons, including any frontline reserves in excess of nine aircraft per squadron or deducting for any deficiency below initial equipment.

PHC/9-13-43